



BOARD *of* REGENTS
STATE OF LOUISIANA

Louisiana Prosperity Initiative

State of Louisiana, Board of Regents

Louisiana Prosperity Index: Technical Documentation & Statistical Model

Prepared by: Institute for Educational Leadership

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Louisiana Prosperity Index:

Technical Documentation & Statistical Model

Summary

This report includes the statistical model and technical documentation describing the Louisiana Prosperity Index. This report includes a complete description of the Index, including the data codebook and technical documentation of methods used to calculate the Index and develop the statistical model. For this report, the Institute for Educational Leadership (IEL) conducted correlational analyses to understand the relationship between individual indicators, dimension scores, and overall Prosperity Index scores.

As you read through this document, please note that the data presented are *standardized scores and not actual values*. Scores can be used to understand the relationships among different regions; however, differences between scores are not immediately interpretable as all indicators have been transformed to a single scale. For example, a 10-point difference in the postsecondary attainment standardized score is *not* equal to a 10-percentage point difference in postsecondary attainment. Please refer to the detailed description on pages 11-14 in this document.

Data used in the development of the Prosperity Index includes publicly available datasets, such as Census American Community Survey, Civil Rights Data Collection (CRDC), Centers for Disease Control (CDC) and Prevention, Louisiana Department of Education, and other sources. These data sources are, at minimum, one year behind the current status. For instance, we have witnessed high unemployment rates during the COVID-19 pandemic, but this is not captured by the publicly available data available in this Index. For detailed information on the most recent year in which data for each indicator was collected, please reference pages 6-10.

The Louisiana Prosperity Index

In collaboration with the Louisiana Board of Regents, the Institute for Educational Leadership (IEL) developed a Louisiana Prosperity Index to describe the determinants of prosperity in Louisiana and the conditions that facilitate it. Prior to calculating Index scores, IEL created a Louisiana Prosperity Framework and conducted a data feasibility analysis to determine which indicators would be included. This Framework was informed by a comprehensive literature review, two focus groups, and five interview sessions with leaders from a cross-sector of Louisiana agencies.

As described in the Framework, *prosperity* is defined as "the state of flourishing and thriving in all aspects of well-being." There are five core dimensions of prosperity: Education, Economy, Wellness, Infrastructure, and Society. Figure 1 depicts the Framework, including indicators within each dimension. Table 1 describes the geographic level at which each indicator is calculated and notes whether each indicator can be disaggregated by race/ethnicity, sex, and/or ability status.

Figure 1: Louisiana Prosperity Framework

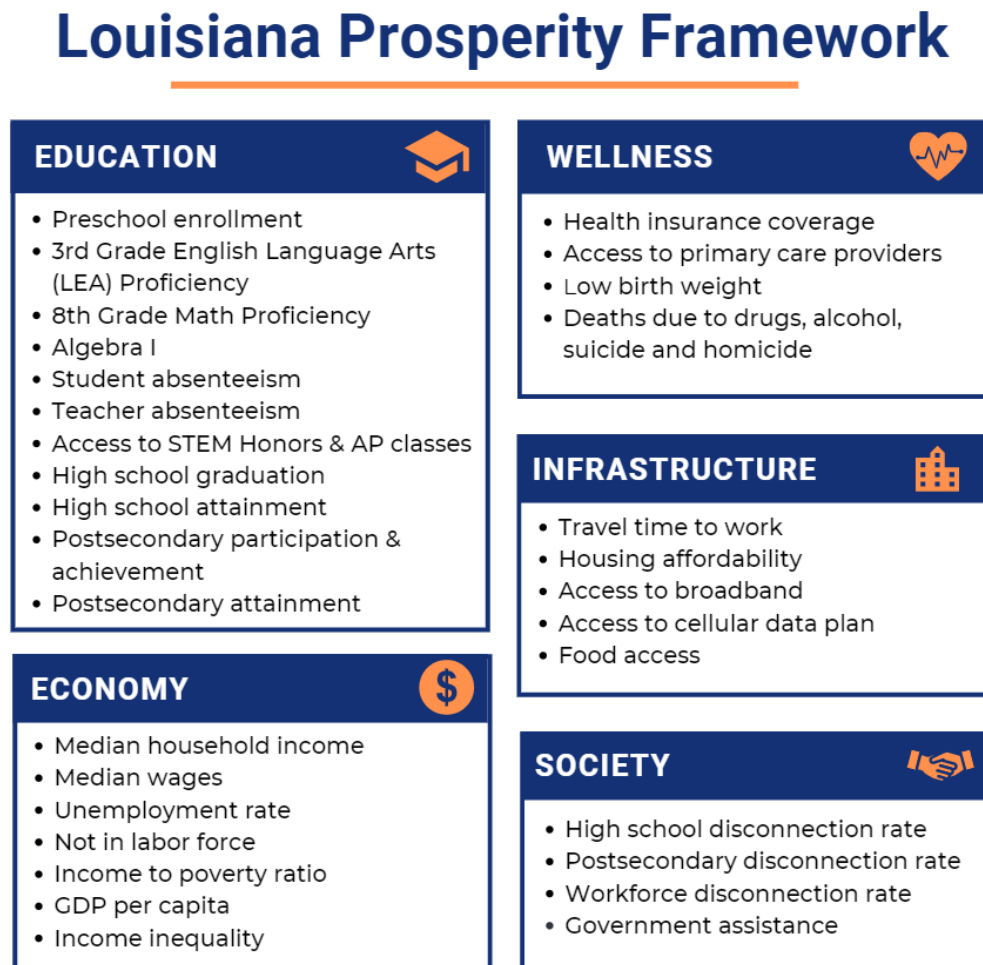


Table 1: Indicator Geographic Level & Disaggregation

Dimension	Indicator	Calculated at Parish Level	Calculated at PUMA Level	Can be Disaggregated*
Education	Preschool Enrollment	✓		✓
	3rd English Language Arts Proficiency	✓		
	8th Grade Math Proficiency	✓		
	Mastery of Algebra I	✓		
	Access to STEM Honors and AP Classes		✓	
	Student Absenteeism		✓	
	Teacher Absenteeism		✓	
	High School Graduation	✓		
	High School Attainment		✓	✓
	Postsecondary Participation & Achievement		✓	✓
	Postsecondary Attainment		✓	✓
Economy	Median Household Income		✓	
	Median Wages		✓	✓
	Income to Poverty Ratio		✓	
	GDP Per Capita	✓		
	Unemployment		✓	✓
	Not in the Labor Force		✓	✓
	Income Inequality		✓	
Wellness	Low Birth Weight		✓	
	Deaths due to Drugs, Alcohol, Suicides and Homicides		✓	
	Health Insurance Coverage		✓	✓
	Access to Primary Care Providers		✓	
Infrastructure	Broadband Internet Access		✓	
	Access to Cell Phone Data Plan		✓	
	Travel Time to Work		✓	✓
	Housing Affordability		✓	
	Food Access	✓		
Society	High School Disconnection		✓	✓
	Postsecondary Disconnection		✓	✓
	Workforce Disconnection		✓	✓
	Government Assistance		✓	✓

Indicator Definitions & Data Source

EDUCATION INDICATORS

Preschool enrollment

Definition: The ratio of children aged three or four who are enrolled in public or private nursery school/preschool to the total number of children aged three or four.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

3rd grade English Language Arts (LEA) proficiency

Definition: Percent of 3rd Grade Students at Achievement Level of Mastery & Above for English Language Arts (LEA).

Source: Louisiana Department of Education

8th grade math proficiency

Definition: Percent of 8th Grade Students at Achievement Level of Mastery & Above for Mathematics.

Source: Louisiana Department of Education

Algebra I

Definition: Percent of High School Students at Achievement Level of Mastery & Above for Algebra I.

Source: Louisiana Department of Education

Student absenteeism

Definition: The ratio of the total number of students who were absent 15 or more days during the school year to total number of the students.

Source: CRDC Data, 2015-2016

Teacher absenteeism

Definition: The ratio of the total number of full time equivalent (FTE) teachers who were absent more than 10 school days during the school year to the total number of FTE teachers.

Source: CRDC Data, 2015-2016

Access to STEM Honors and AP classes

Definition: The ratio of the number of students who have taken at least one Advanced Placement mathematics/science course to the total number of students.

Source: CRDC Data, 2015-2016

High school attainment

Definition: The ratio of population aged 25 and older who have educational attainment such as a regular high school diploma, GED, alternative credential, or some college experience, but no degree (Associate's, Bachelor's, Master's, Professional, or Doctorate degree) to the total population aged 25 and older.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

High school graduation rate

Definition: Cohort graduation rates reported by high schools in Louisiana annually.

Source: Louisiana Department of Education

Postsecondary participation & achievement

Definition: The ratio of students aged 18 to 24 who are enrolled (as college undergraduates) in public or private college or have already achieved postsecondary credits and degrees to the total number of students aged 18 to 24.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Postsecondary attainment

Definition: The ratio of population aged 25 and older who have educational attainment of college or higher such as some College credits, Associate's, Bachelor's, Master's, Professional, or Doctorate degree to the total population aged 25 and older.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

ECONOMY INDICATORS

Median household income

Definition: This median household income (in 2010 dollars). The median reflects the income level that falls at the midpoint of the total distribution of households, ranked from richest to poorest.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Median wages

Definition: The median personal wages (in 2010 dollars). The median reflects the income level that falls at the midpoint of the total distribution of households, ranked from richest to poorest.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Unemployment rate

Definition: The unemployment rate represents the number unemployed as a percent of the labor force (aged 16 years and older in the civilian noninstitutional population).

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Not in the labor force to population ratio

Definition: The not-in-labor-force-population ratio represents the number of persons aged 16 years and older in the civilian noninstitutional population who are neither employed nor unemployed as a percentage of the civilian noninstitutional population.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Income to poverty ratio

Definition: The ratio of median income to the poverty line.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

GDP per capita

Definition: The GDP (in 2015 dollars) over the population.

Source: Bureau of Economic Analysis

Income Inequality

Definition: The ratio of median household income at the 80th percentile to the 20th percentile.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

WELLNESS INDICATORS

Health insurance coverage

Definition: The ratio of the population aged 18 to 64 covered by health insurance to the total population aged 18 to 64.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Access to primary care providers

Definition: The ratio of the number of primary care physicians to the total population.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Low birth weight

Definition: The ratio of number of births where the infant weighed less than 2,500 grams (approximately 5.5 lbs.) to the total number of births.

Source: CDC, WONDER

Deaths due to drugs, alcohol, suicide, or homicide

Definition: The ratio of the number of deaths due to poisoning from drugs (including recreational and prescription drugs), alcohol, suicide, or homicide to the total population.

Source: CDC, National Violent Death Reporting System (NVDRS)

INFRASTRUCTURE INDICATORS

Travel time to work

Definition: The percentage of individuals who travel to work who have an average commute time of more than 30 minutes.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Housing affordability

Definition: The median of the monthly owner costs as a percentage of household income.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Access to broadband

Definition: The ratio of number of households with subscriptions to broadband internet service (including both cables, fiber optic and DSL) to the total number of households.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Access to a cellular data plan

Definition: The ratio of number of households with cellular data plan for a smartphone or other mobile device.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Food access

Definition: Ratio of population who are living beyond 0.5 miles of a supermarket in urban areas and within 10 miles of a supermarket in rural areas.

Source: USDA

SOCIETY INDICATORS

High school disconnection rate

Definition: The ratio of population aged 16 to 24 who have not attended school in the last 3 months, have not earned a high school diploma, GED, or alternative credential, and are unemployed to the total population aged 16 to 24.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Postsecondary disconnection rate

Definition: The ratio of population aged 16 to 24 who have not attended school in the last 3 months and are unemployed but have attained a high school diploma, GED, or alternative credential to the total population aged 16 to 24.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Workforce disconnection rate

Definition: The ratio of population aged 16 to 24 who have not attended college in the last 3 months and are unemployed but attained educational attainment (Some college, but less than 1 year/1 or more years of college credit, no degree/Associate's degree/Bachelor's degree/ Master's degree/Professional degree/Doctorate degree) to the total population aged 16 to 24.

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Government assistance

Definition: Ratio of population (16 years and older) who receive Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability

Source: United States Census Bureau: 2018 ACS 5-year Public Use Microdata Samples (PUMS)

Methods

Regional Labor Market Area Aggregation

Louisiana Prosperity Index scores, as well as dimension and indicator scores, are aggregated at the Regional Labor Market Area (RLMA) level, as requested by the Louisiana Board of Regents. RLMAs contain contiguous geographic regions in which multiple parishes are fully encompassed. The list of parishes within each of the eight RLMAs was obtained from this website:

http://www.laworks.net/LaborMarketInfo/LMI_LaborForceDiversity_RLMA.asp

Mapping PUMA-level Indicators to Parish-level Indicators

While some indicators were calculated at the parish level, others were calculated at the Public Use Microdata Area (PUMA) level, based on data availability and source. While PUMAs are similarly geographically contiguous regions, they do not align with parishes and/or RLMAs. To aggregate PUMA-level indicators at the RLMA level, data were first converted from PUMA-level to parish-level using an allocation factor based on population size. The allocation factor was obtained from this website:

<http://mcdc.missouri.edu/applications/geocorr2018.html>

Standardizing Parish-level Indicators

Once all indicators were calculated at the parish level, all indicators were standardized. This process is necessary to compare diverse indicators across a common scale, because non-standardized indicators include a variety of different units (e.g., dollars, percentages, and rates).

Indicators were standardized based on the minimum and maximum values for each indicator. It was necessary to take directionality of each indicator into account before standardizing, to ensure minimum and maximum values were in accordance with whether a higher score was better, or a lower score was better. For example, high school graduation rates should become larger as this indicator improves, whereas unemployment rates should get smaller as this indicator improves. Thus, Indicators were classified into one of the two following categories:

1. Lower the Better
2. Higher the Better

Table 2 indicates which indicators were categorized as "lower the better" and which were categorized as "higher the better". This is in accordance with definitions described above.

Table 2: Indicator Directionality

Dimension	Indicator	Lower the Better	Higher the Better
Education	Preschool Enrollment		✓
	3rd Grade English Language Arts Proficiency		✓
	8th Grade Math Proficiency		✓
	Mastery of Algebra I		✓
	Access to STEM Honors and AP Classes		✓
	Student Absenteeism	✓	
	Teacher Absenteeism	✓	
	High School Graduation		✓
	High School Attainment		✓
	Postsecondary Attainment		✓
	Postsecondary Participation & Achievement		✓
Economy	Median Household Income		✓
	Median Wages		✓
	Income to Poverty Ratio		✓
	GDP Per Capita		✓
	Unemployment	✓	
	Not in the Labor Force	✓	
	Income Inequality	✓	
Wellness	Low Birth Weight	✓	
	Deaths due to Drugs, Alcohol, Suicides and Homicides	✓	
	Health Insurance Coverage		✓
	Access to Primary Care Providers		✓
Infrastructure	Broadband Internet Access		✓
	Access to Cell Phone Data Plan		✓
	Travel Time to Work	✓	
	Housing Affordability	✓	
	Food Access	✓	
Society	High School Disconnection	✓	
	Postsecondary Disconnection	✓	
	Workforce Disconnection	✓	
	Government Assistance	✓	

Following categorization of indicators as "lower the better" or "higher the better," indicators were standardized using the following formulas by their categorization:

Lower the Better

$$\frac{\text{Highest Value} - \text{Observed Value}}{\text{Highest Value} - \text{Lowest Value}} \times 100 = \text{Standardized Indicator}$$

Higher the Better

$$\frac{\text{Observed Value} - \text{Lowest Value}}{\text{Highest Value} - \text{Lowest Value}} \times 100 = \text{Standardized Indicator}$$

These calculations yielded standardized indicators, all using a score on a scale of 0 to 100, in which 0 is least optimal, and 100 is most optimal. This allows for comparisons across standardized indicators using a common unit and directionality.

Mapping Standardized Parish-level Indicators to Regional Labor Market Areas

Standardized parish-level indicators were then aggregated at the RLMA level using an allocation factor based on population size. The allocation factor was determined using the following equation:

$$\frac{\text{Parish Population}}{\text{Sum of Population of All Parishes within RLMA}} = \text{RLMA Allocation Factor}$$

Dimension & Prosperity Index Score Calculations

Dimension Scores

Once all standardized indicators were aggregated at the RLMA level, dimension scores were calculated by taking a simple average of all indicators within each dimension. For example, for the Education dimension, we summed standardized scores for each of the 11 indicators and then divided the sum by 11, the total number of Education indicators, to yield the Education dimension score. This was repeated for each of the five dimensions.

Prosperity Index Scores

Overall Prosperity Index scores were calculated using a weighted average of dimension scores. Based on the opinions from focus groups and interviews with Louisiana key officials, Education and Economy dimensions have a more pronounced impact on overall prosperity in Louisiana. A simple average of dimension scores, in which all dimensions are weighted equally, would not account for this difference. However, weighting all indicators equally would heavily skew Index scores to Education and Economy dimensions, since they include more indicators than the other three dimensions combined. Thus, Prosperity Index scores are calculated by weighting Education and Economy dimensions at 50 percent of the total score and weighting the remaining three dimensions, Wellness, Infrastructure, and Society, as the remaining 50 percent of the total score. The calculation for each Prosperity Index (P.I.) score is as follows:

$$\left(\frac{Average_Education + Average_Economy}{2} * 0.5 \right) + \left(\frac{Average_Wellness + Average_Infrastructure + Average_Society}{3} * 0.5 \right) = P.I.$$

Louisiana Statewide Average Indicator, Dimension, and Prosperity Index Scores

Following calculation of the indicator, dimension, and Prosperity Index scores at the RLMA level, scores were aggregated at the state level to provide a statewide average score per indicator. This process was done using a statewide allocation factor per RLMA based on population size. The allocation factor was determined using the following equation:

$$\frac{RLMA\ Population}{Total\ Louisiana\ Population} = Statewide\ Allocation\ Factor$$

Race/Ethnicity, Sex, and Ability Status Disaggregation

Prosperity Index indicator values will be disaggregated for a total of 13 indicators by race/ethnicity, sex, and ability status and provided in data tables. One exception is that Preschool Enrollment will only be disaggregated by race/ethnicity and sex, as values are too small to be disaggregated by ability status and thus are not statistically meaningful. The Prosperity Index data dashboard visualization will include 12 indicators disaggregated by race/ethnicity, omitting median wages, due to limitations in Power BI display functionality. The data dashboard visualization will only include disaggregation by race/ethnicity, as the Louisiana agencies identified this equity dimension as a shared top priority. Disaggregation of data by sex and ability can be added to future Index to explore data in context to local data sources.

Louisiana Prosperity Index Scores

Figure 2 displays a heat map of Prosperity Index scores by RLMA. Table 3 indicates correspondence between RLMA Name and RLMA Number. Table 4 displays dimension and Prosperity Index scores per RLMA Name and statewide. Table 5 displays indicator scores per RLMA Number and statewide.

Figure 2: Louisiana Prosperity Index Scores by RLMA

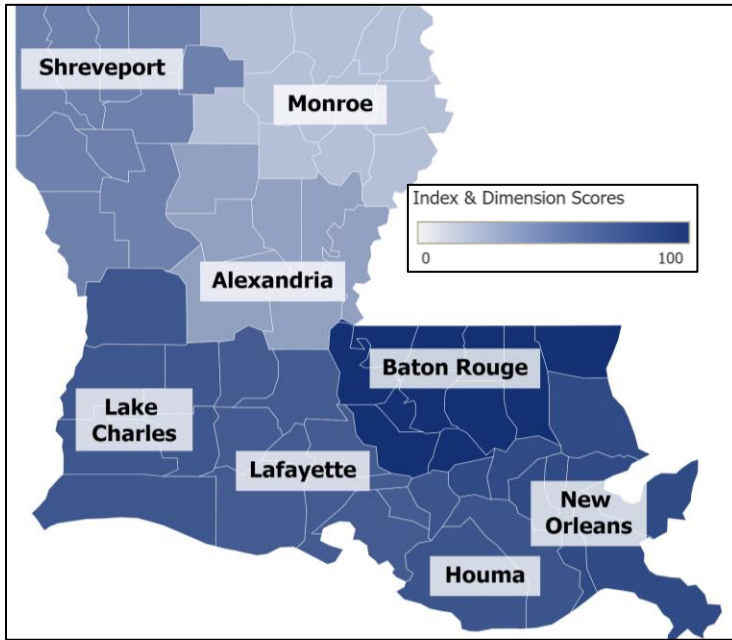


Table 3: Correspondence Between RLMA Name and RLMA Number

RLMA Name	RLMA Number
Alexandria	6
Baton Rouge	2
Houma	3
Lafayette	4
Lake Charles	5
Monroe	8
New Orleans	1
Shreveport	7

Table 4: Dimension and Prosperity Index Scores by RLMA Number and Statewide

Dimensions	RLMA								State-wide
	6	2	3	4	5	8	1	7	
Education	42.63	56.96	50.68	52.22	51.71	46.14	55.46	52.23	53.01
Economy	33.33	58.91	48.54	40.79	46.10	24.47	53.90	32.64	46.31
Wellness	51.26	55.86	55.73	61.88	59.58	46.20	56.43	58.80	56.60
Infrastructure	61.14	57.44	62.27	61.64	63.08	60.08	55.58	58.75	58.78
Social	43.23	77.77	67.60	65.42	63.30	31.09	66.65	51.71	62.95
Prosperity Index	44.93	60.81	55.74	54.74	55.45	40.55	57.12	49.43	54.55

Table 5: Indicator Scores by RLMA Number and Statewide

	Indicator	RLMA								State-wide
		6	2	3	4	5	8	1	7	
Education	Preschool Enrollment	49.9	68.7	54.4	53.3	40.6	40.1	82.3	62.9	63.5
	3rd Grade English Language Arts Proficiency	51.9	61.2	77.0	64.2	71.7	43.1	58.8	51.6	59.6
	8th Grade Math Proficiency	49.0	51.4	63.1	58.0	43.5	28.6	38.9	41.0	46.0
	Mastery of Algebra I	44.1	51.3	63.0	59.7	56.9	39.9	50.4	50.1	51.9
	Access to STEM Honors & AP Classes	4.7	29.4	30.8	39.3	9.7	57.6	28.9	30.4	29.9
	Student Absenteeism	35.7	48.3	43.9	53.0	44.9	54.1	40.0	53.4	46.6
	Teacher Absenteeism	83.4	58.7	69.9	75.2	57.1	64.9	57.0	37.6	60.1
	High School Graduation	59.0	45.4	91.3	59.3	89.2	60.1	40.5	60.7	55.5
	High School Attainment	46.1	76.7	17.4	40.5	67.1	47.8	77.6	75.7	64.2
	Postsecondary Attainment	31.3	65.0	13.6	30.8	50.5	33.3	79.2	60.3	55.5
	Postsecondary Participation & Achievement	13.7	70.4	33.2	41.1	37.7	37.9	56.4	50.7	50.2
Economy	Median Household Income	23.0	53.6	39.1	32.5	37.3	12.1	46.9	17.3	37.6
	Median Wages	25.5	48.9	43.7	37.3	41.2	21.9	52.4	20.6	40.5
	Income to Poverty Ratio	25.2	53.9	39.7	32.3	38.0	14.2	50.5	21.1	39.4
	GDP Per Capita	11.4	51.2	8.4	8.0	31.8	11.5	29.0	22.0	26.9
	Unemployment	58.1	61.2	70.6	48.0	50.3	42.2	62.5	44.6	55.7
	Not in the Labor Force	25.5	75.4	56.6	62.5	54.9	24.3	75.9	46.0	61.0
	Income Inequality	64.6	68.2	81.7	64.9	69.3	45.1	60.2	57.0	63.2
Wellness	Low Birth Weight	60.8	61.8	60.1	75.8	62.0	50.4	69.4	34.4	61.3
	Deaths due to Drugs, Alcohol, Suicide or Homicide	92.2	63.9	88.4	87.9	90.5	90.2	29.8	78.9	67.0
	Health Insurance Coverage	37.8	73.9	60.0	65.0	60.3	35.6	70.8	75.3	65.6
	Access to Primary Care Providers	14.2	23.9	14.4	18.7	25.5	8.6	55.7	46.6	32.5
Infrastructure	Broadband Internet Access	30.1	76.2	84.5	65.3	67.3	30.2	88.1	49.3	68.3
	Access to Cell Phone Data Plan	76.8	69.1	48.4	54.1	50.1	52.8	62.6	58.6	60.7
	Travel Time	71.6	47.4	57.6	69.8	80.6	86.3	61.9	85.2	66.3
	Housing Affordability	81.0	65.4	81.4	75.2	96.2	87.5	36.8	69.9	65.4
	Food Access	46.1	29.1	39.5	43.8	21.2	43.7	28.5	30.8	33.1
Society	High School Disconnection	57.3	88.7	59.5	72.5	84.7	34.8	94.2	82.0	79.7
	Postsecondary Disconnection	37.1	87.7	84.2	65.5	55.9	29.5	71.6	61.4	67.5
	Workforce Disconnection	43.0	69.4	79.1	80.6	56.4	43.9	52.9	34.8	58.4
	Government Assistance	35.6	65.4	47.5	43.1	56.2	16.2	47.9	28.6	46.2

Louisiana Prosperity Analysis Statistical Model

The statistical model helps to understand the relationship among individual indicators, dimension scores, and the overall Prosperity Index. It is important to note that as this is the first iteration of the Prosperity Index, data were only available for one year. Thus, correlations were examined between standardized indicators and overall Index scores, as well as between dimension scores and Index scores. This furthers our understanding of the ways in which indicator and dimension scores connect to Index scores.

Indicator correlations were conducted using parish-level standardized indicators, dimension scores, and Index scores. There are 64 parishes in the state of Louisiana, compared to only eight RLMAs, so using parish-level indicators allowed for more observations. Correlation results are reported using Pearson's *R* values, which examine the strength and direction of the linear relationship among indicators, dimension scores, and the Prosperity Index. The correlation coefficient (value) can range from -1 to +1. The larger the absolute value of the correlation coefficient, the stronger the relationship between the variables. Therefore, an absolute value of 1 indicates a perfect linear relationship, and value closes to 0 means no linear relationship between the variables. In social science research, absolute values between 0 and 0.20 generally indicate a weak relationship. Any absolute value between 0.20 and 0.50 represents a moderate relationship. The relationships are strong if the absolute values are higher than 0.50. The sign of the correlation coefficient shows the direction of the relationship. Both variables will increase or decrease together when the correlation coefficient is positive. If one variable tends to decrease as the other increase, the correlation is negative.

It is important to keep in mind that since indicators have been standardized, a one-unit increase is consistent across all indicators, and all have been transformed to "higher the better," meaning that increases in indicator scores indicate beneficial societal outcomes. With future years' data, both adding to the number of observations and encompassing future policy changes in some of these areas, we would expect correlation scores to change over time.

Correlations between dimension scores and Index scores are displayed in Table 6, and correlations between standardized indicators and Index scores are displayed in Table 7.

Table 6: Correlations between Parish-level Dimension Scores and Index Scores

	Pearson's <i>R</i>
Society	0.9269
Wellness	0.8182
Infrastructure	0.3548
Economy	0.8496
Education	0.7647

Table 7: Correlations between Parish-level Standardized Indicator Scores and Index Scores

Dimension	Indicator	Pearson's R
Education	Preschool Enrollment	0.5006
	3rd Grade English Language Arts Proficiency	0.6226
	8th Grade Math Proficiency	0.3847
	Mastery of Algebra I	0.6068
	Access to STEM Honors and AP Classes	-0.5353
	Student Absenteeism	0.3387
	Teacher Absenteeism	0.0043
	High School Graduation	0.1035
	High School Attainment	0.6948
	Postsecondary Attainment	0.7013
	Postsecondary Participation & Achievement	0.4259
Economy	Median Household Income	0.8344
	Median Wages	0.7656
	Income to Poverty Ratio	0.8598
	GDP Per Capita	0.4001
	Unemployment	0.3885
	Not in the Labor Force	0.9225
	Income Inequality	0.5920
Wellness	Low Birth Weight	0.2453
	Deaths due to Drugs, Alcohol, Suicides and Homicides	-0.2169
	Health Insurance Coverage	0.8205
	Access to Primary Care Providers	0.4028
Infrastructure	Broadband Internet Access	0.9083
	Access to Cell Phone Data Plan	0.1900
	Travel Time to Work	-0.1947
	Housing Affordability	-0.4596
	Food Access	-0.4308
Society	High School Disconnection	0.8284
	Postsecondary Disconnection	0.8294
	Workforce Disconnection	0.3705
	Government Assistance	0.8066

Discussion

Correlation results displayed in Table 6 demonstrate that relationships between Index and dimension scores vary. All dimensions are above the 0.5 threshold for a strong relationship with the Index except for the Infrastructure dimension. Digging deeper on the indicator level in Table 7, we see that, as expected, many Economy and Education indicators have a strong correlation with Index scores. However, in some cases, particularly in the Infrastructure dimension, we see that correlation coefficient (value) is negative, which indicates an inverse relationship – meaning that as these indicator scores decrease, we would expect Prosperity Index scores to increase. Due to the limited data available, as these scores only represent one year of data and only 64 observations, we recommend keeping these indicators and waiting until we have at least one additional year of data to determine whether this trend persists. It could be possible that an indicator such as Housing Affordability is negatively correlated with prosperity because people tend to be most prosperous in areas where housing is not affordable – but we do not have enough information to make inferences at this time. Overall, correlations align with our predictions regarding factors that influence prosperity.

Conclusion

The Prosperity Index offers a one-year snapshot of prosperity in Louisiana by Regional Labor Market Area (RLMA). With the first-year worth of data, the Index can be used to identify the areas most in need of support. As more data are collected over time, the model can be refined. The Index can then be used to track and predict changes in indicator scores following interventions or other policy changes. Additionally, the Index can be used alongside data for the Louisiana Master Plan to better understand the intersections of education data with other dimensions. As noted in the Master Plan, this tool will allow various stakeholders to both track and demonstrate which growth areas are driving improvement in the state's overall well-being.